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| 10/577,995      | 05/03/2006  | Stijn Vancompernelle | 016782-0358         | 4929             |

22428 7590 07/23/2009  
FOLEY AND LARDNER LLP  
SUITE 500  
3000 K STREET NW  
WASHINGTON, DC 20007

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| EXAMINER |
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FREEMAN, JOHN D

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| ART UNIT | PAPER NUMBER |
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1794

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07/23/2009

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

|                              |                                      |  |  |
|------------------------------|--------------------------------------|--|--|
| <b>Office Action Summary</b> | <b>Application No.</b><br>10/577,995 | <b>Applicant(s)</b><br>VANCOMPERNOLLE ET AL. |  |
|                              | <b>Examiner</b><br>John Freeman      | <b>Art Unit</b><br>1794                      |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 23 March 2009.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1,3-9,14 and 15 is/are pending in the application.
- 4a) Of the above claim(s) 7-9 and 14 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3-6 and 15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 February 2008 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>3/30/09</u> .   | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 1, 3-6 and 15 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

3. Claim 1 recites a cord consisting of at least two and at most ten strands, wherein each strand consists of at least two and at most nineteen filaments. Although Applicant notes several examples on p5 of the specification, which provide specific numbers of filaments and strands, these do not provide support to recite the two ranges found in claim 1.

4. Claim 1 recites the plain carbon steel and austenitic stainless steel, "said steels being substantially free of quenched martensitic structures". While the specification provides support for "plain carbon steel" and "austenitic stainless steel" (p4 lines 6-19), it does not appear to provide support for the specific lack of quenched martensitic structures.

5. The cited phraseology clearly signifies a "negative" or "exclusionary" limitation for which the applicants have no support in the original disclosure. Negative limitations in a claim which do not appear in the specification as filed introduce new concepts and violate the description requirement of 35 USC 112, first paragraph, *Ex Parte Grasselli, Suresh, and Miller*, 231 USPQ 393, 394 (Bd. Pat. App. and Inter. 1983); 783 F. 2d 453.

6. The insertion of the above phraseology as described above positively excludes quenched martensitic structures; however, there is no support in the present specification for such exclusions. While the present specification is silent with respect to the use of quenched martensitic structures, is noted that as stated in MPEP 2173.05(i), the "mere absence of a positive recitation is not the basis for an exclusion."

7. Claims 1, 3-6, and 15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

8. Claim 1 recites steels being "substantially free" of quenched martensitic structures. The phrase "substantially free" renders the claims indefinite. The phrase is a relative phrase which renders the claim indefinite. The phrase "substantially free" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. It is not clear how little martensitic structures the steel may have and still be considered "substantially free" of said structures.

***Claim Rejections - 35 USC § 103***

9. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

10. Claims 1, 3-6, and 15 rejected under 35 U.S.C. 103(a) as being unpatentable over Yazawa et al. (US 3,600,884) in view of Oehr et al. (US 5,464,510).

11. Yazawa disclose a steel cord consisting of four strands, each constructed from seven filaments, wherein the lay of the filaments is opposite to the lay of the strands (claim 1). Example 1 discloses filaments having a diameter of 0.18 mm (180 microns) (col 2 ln 29-31).

12. Yazawa is silent with regard to "plain carbon steel".

13. The state of the art was such that one of ordinary skill in the art would immediately envisage the use of plain carbon steel with Yazawa's invention. The fact Yazawa does not require any particular alloy implies one could choose plain carbon steel; any other alloying material required would need to be specified. At the time of the invention, it would have been obvious to one of ordinary skill in the art to use plain carbon steel given its ubiquitous use in the art and inexpensive price.

14. Regarding the steel being "substantially free" of quenched martensitic structures, the avoidance of such structures was known in the art. For example, Oehr teaches any quenching of steel wires should

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occur after letting the wire cool so as not to produce martensite, which is an extremely brittle and undesirable form of steel (col 5 ln 58-67). Therefore, at the time of the invention, it would have been obvious to one of ordinary skill in the art to use wires substantially free of martensitic structures to avoid a brittle and undesirable form of steel.

15. The limitations of present claims 1 and 15 which limit the number of twists per unit length a strand obtains *during twisting* is a product-by-process limitation. As noted in MPEP 2113, "even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985).

16. Also note "[t]he Patent Office bears a lesser burden of proof in making out a case of *prima facie* obviousness for product-by-process claims because of their peculiar nature" than when a product is claimed in the conventional fashion. *In re Fessmann*, 489 F.2d 742, 744, 180 USPQ 324, 326 (CCPA 1974). Once the examiner provides a rationale tending to show that the claimed product appears to be the same or similar to that of the prior art, although produced by a different process, the burden shifts to applicant to come forward with evidence establishing an unobvious difference between the claimed product and the prior art product. *In re Marosi*, 710 F.2d 798, 802, 218 USPQ 289, 292 (Fed. Cir. 1983). Therefore, barring evidence to the contrary, the examiner takes the position Yazawa's cord intrinsically satisfies the test, or otherwise possesses the properties disclosed by Applicant in the present claims.

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17. Claims 1, 3-6, and 15 rejected under 35 U.S.C. 103(a) as being unpatentable over Fenner (US 3,911,662) in view of Oehr et al. (US 5,464,510).

18. Fenner discloses a cord comprising four strands, each constructed from six wires (filaments), wherein the lay of the wires is opposite to the lay the strands (col 1 ln 62-68). The wires have diameters as low as 0.0069 inches (175 microns) (col 2 ln 50-59).

19. Fenner is silent with regard to "plain carbon steel".

20. The state of the art was such that one of ordinary skill in the art would immediately envisage the use of plain carbon steel with Fenner's invention. The fact Fenner does not require any particular alloy implies one could choose plain carbon steel; any other alloying material required would need to be specified. At the time of the invention, it would have been obvious to one of ordinary skill in the art to use plain carbon steel given its ubiquitous use in the art and inexpensive price.

21. Regarding the steel being "substantially free" of quenched martensitic structures, the avoidance of such structures was known in the art. For example, Oehr teaches any quenching of steel wires should occur after letting the wire cool so as not to produce martensite, which is an extremely brittle and undesirable form of steel (col 5 ln 58-67). Therefore, at the time of the invention, it would have been obvious to one of ordinary skill in the art to use wires substantially free of martensitic structures to avoid a brittle and undesirable form of steel.

22. The limitations of present claims 1 and 15 which limit the number of twists per unit length a strand obtains *during twisting* is a product-by-process limitation. As noted in MPEP 2113, "even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985).

23. Also note "[t]he Patent Office bears a lesser burden of proof in making out a case of *prima facie* obviousness for product-by-process claims because of their peculiar nature" than when a product is claimed in the conventional fashion. *In re Fessmann*, 489 F.2d 742, 744, 180 USPQ 324, 326 (CCPA

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1974). Once the examiner provides a rationale tending to show that the claimed product appears to be the same or similar to that of the prior art, although produced by a different process, the burden shifts to applicant to come forward with evidence establishing an unobvious difference between the claimed product and the prior art product. *In re Marosi*, 710 F.2d 798, 802, 218 USPQ 289, 292 (Fed. Cir. 1983). Therefore, barring evidence to the contrary, the examiner takes the position Fenner's cord intrinsically satisfies the test, or otherwise possesses the properties disclosed by Applicant in the present claims.

### ***Response to Arguments***

24. Applicant's arguments with respect to claims 1, 3-6, and 15 have been considered but are moot in view of the new ground(s) of rejection.

25. Applicant's amendment to claim 1 overcomes previous rejections under 35 USC 112: the amendments disclose sufficient structural features of the cord, rather than simple properties.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Freeman whose telephone number is (571)270-3469. The examiner can normally be reached on Monday-Friday 7:30-5:00PM EST (First Friday off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Callie Shosho can be reached on (571)272-1123. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

John Freeman  
Examiner  
Art Unit 1794

/J. F./  
Examiner, Art Unit 1794

/Callie E. Shosho/  
Supervisory Patent Examiner, Art Unit 1794